

ABSTRACT

A flame detector and burner fuel valve control has an ultraviolet sensitive, cold cathode, gas discharge tube in a DC quench circuit. In the presence of a flame, the circuit generates a pulse signal at a frequency related to the intensity of radiation from the flame. The pulse signal from a contaminated tube is at a higher frequency. A frequency discriminator circuit distinguishes between a flame responsive signal and a contaminated tube signal and controls the burner fuel valve.